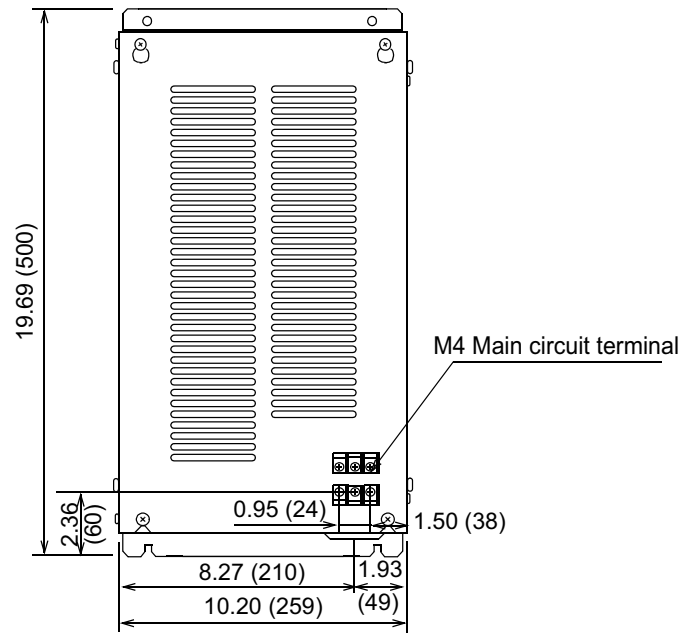
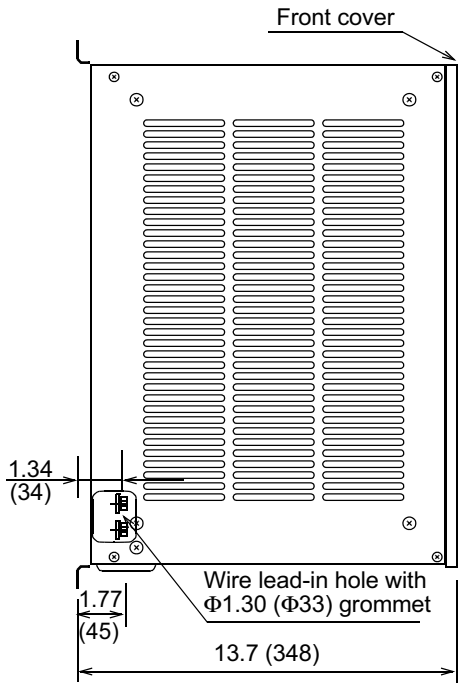
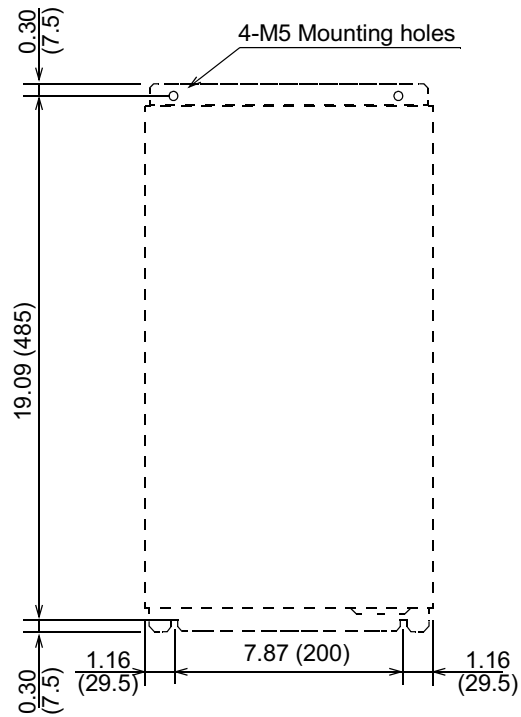


• JUSP-RA12



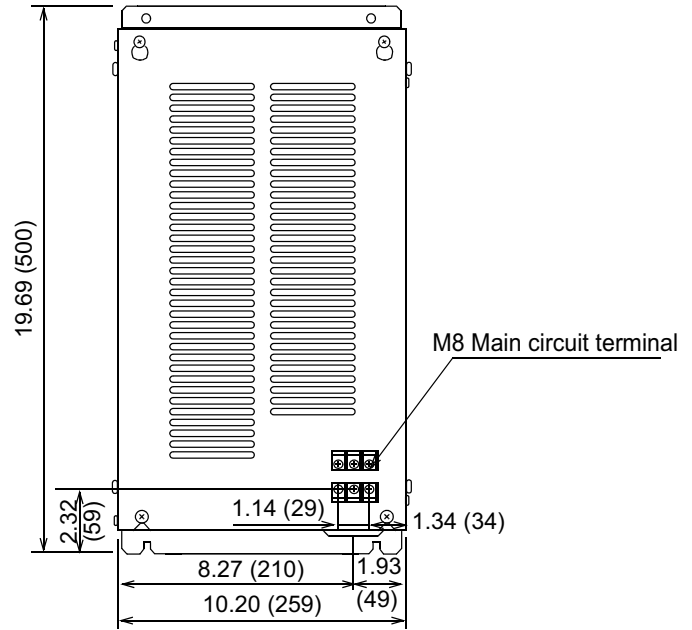
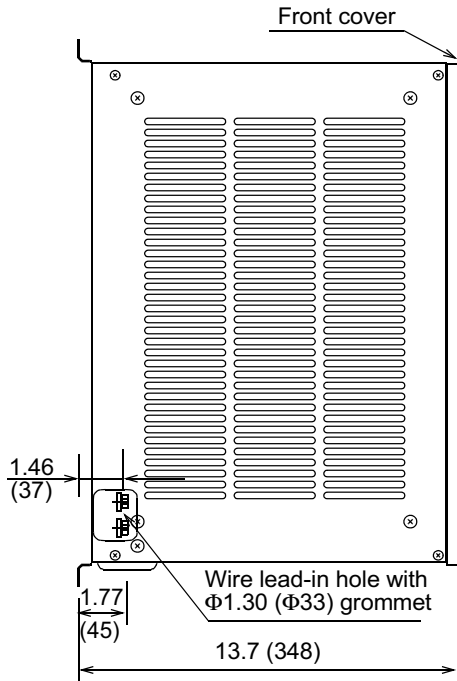
Mounting Hole Diagram



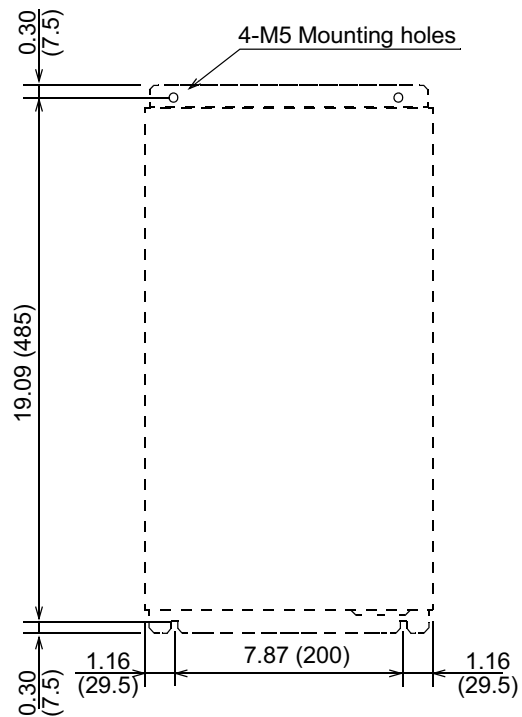
Approximate Mass: 30.9lb (14kg)

400V Sigma II Servo Systems

- JUSP-RA13

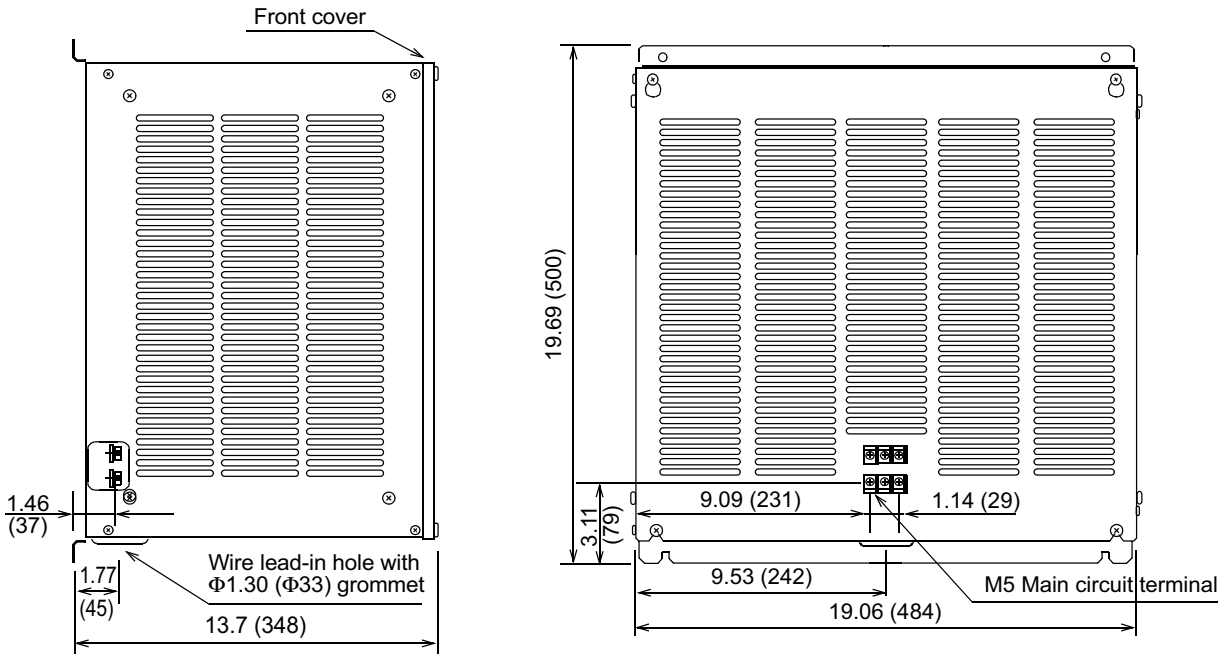


Mounting Hole Diagram

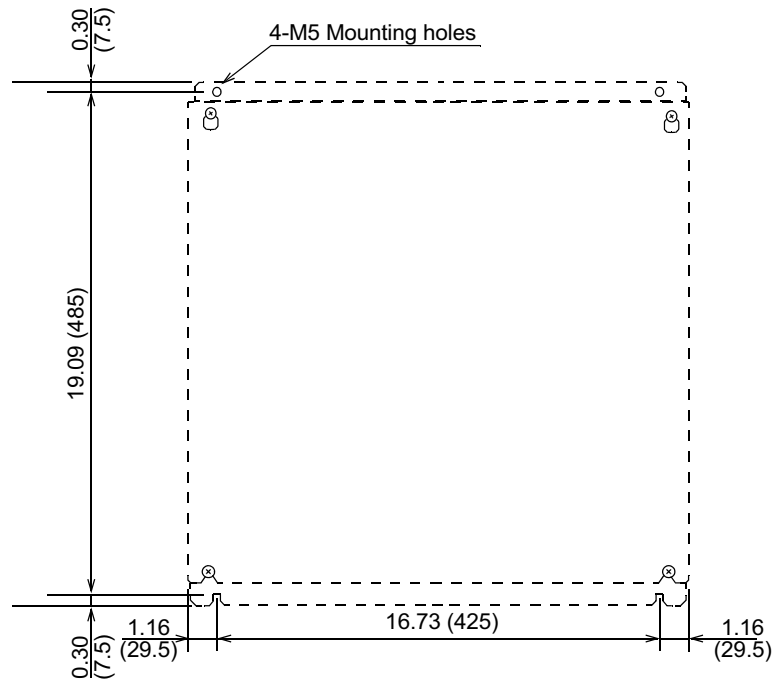


Approximate Mass: 30.9lb (14kg)

- JUSP-RA14



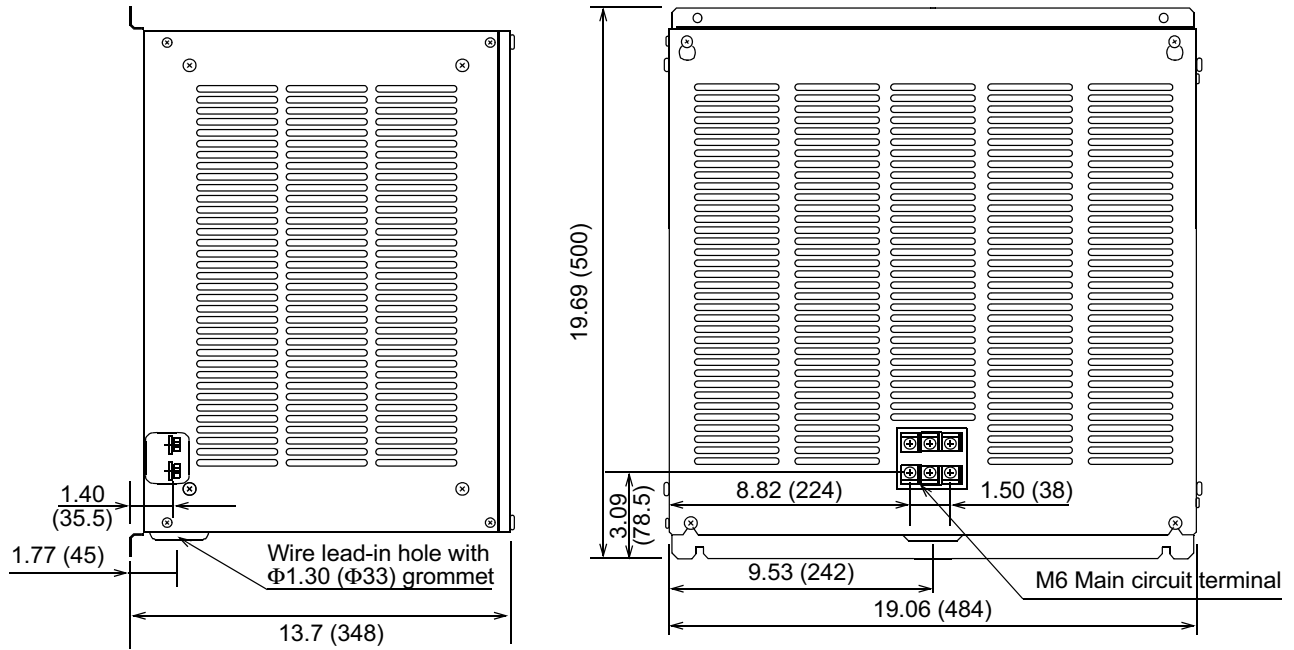
Mounting Hole Diagram



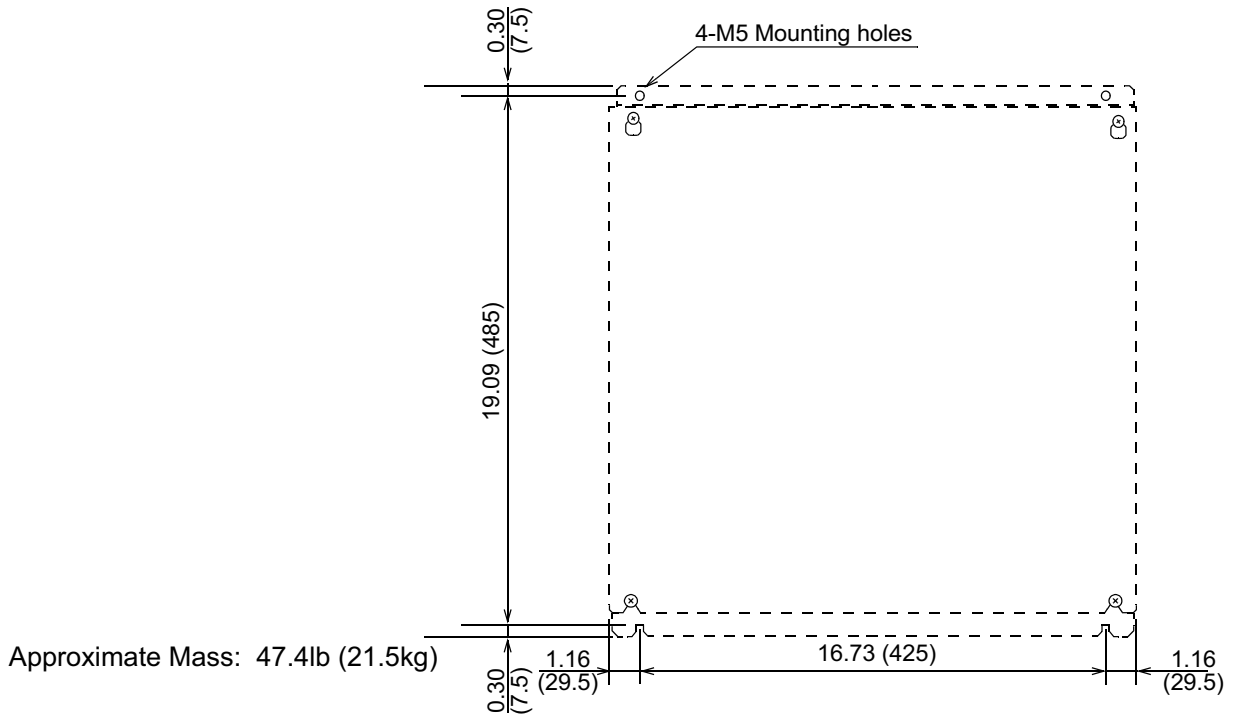
Approximate Mass: 44.1lb (20kg)

400V Sigma II Servo Systems

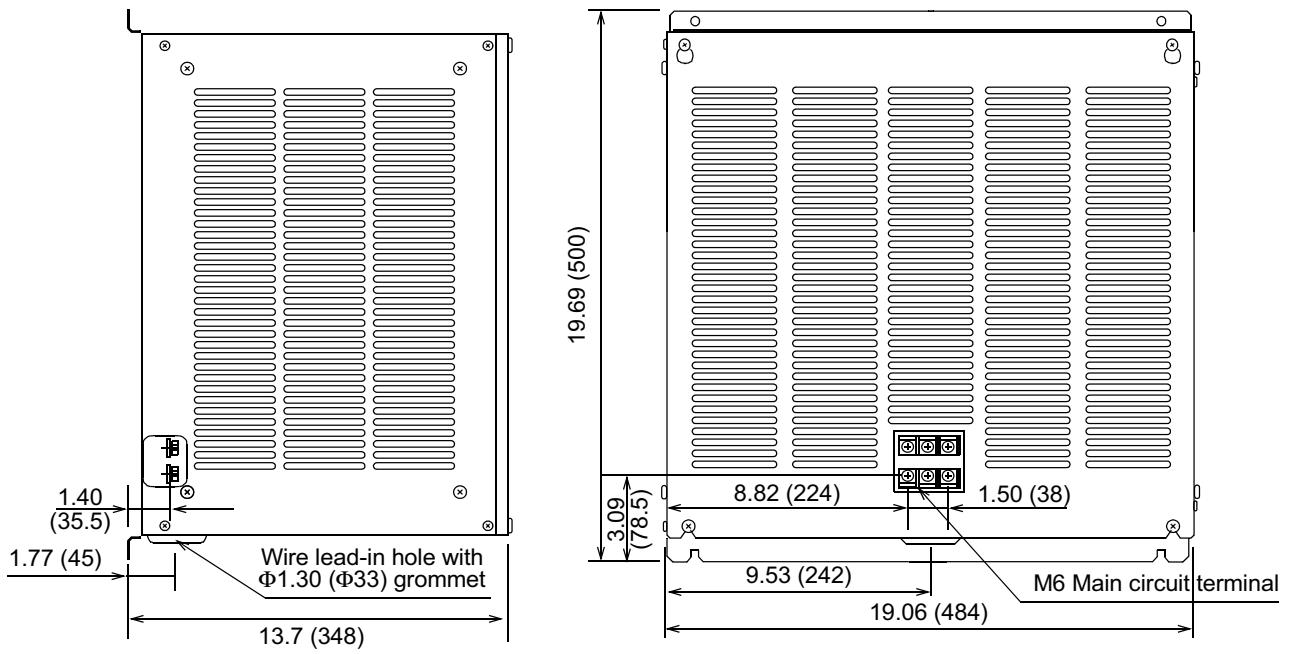
- JUSP-RA15



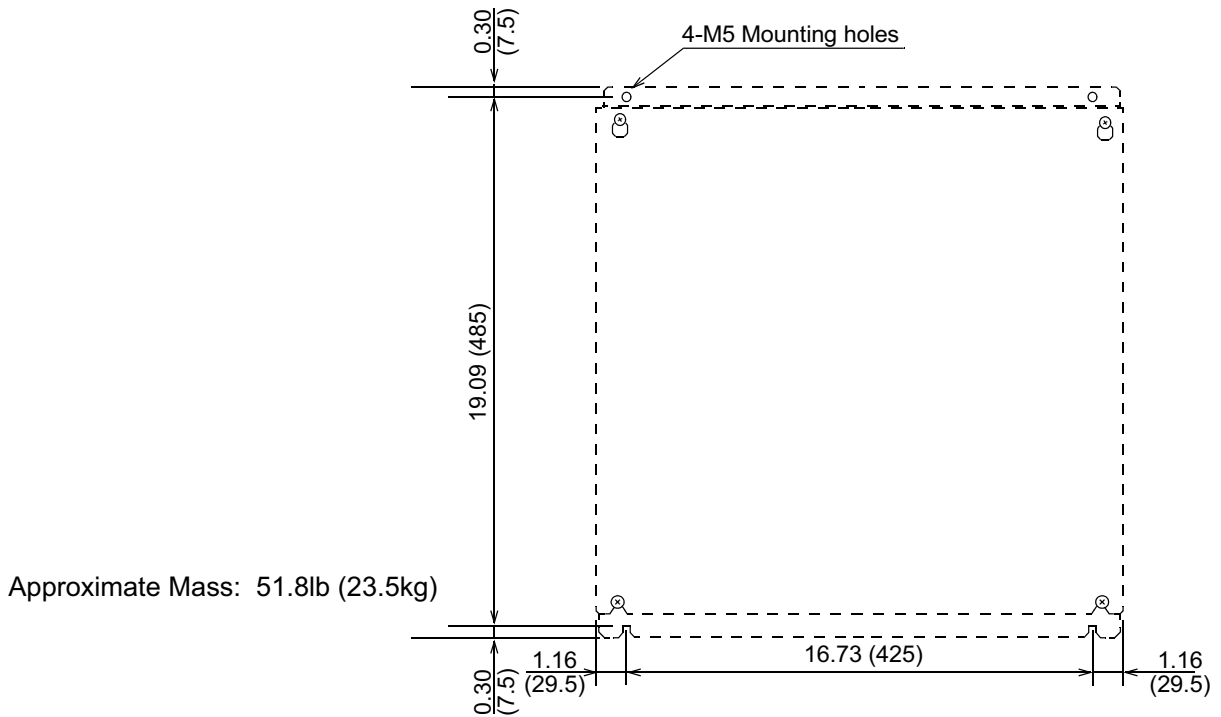
Mounting Hole Diagram



- JUSP-RA16

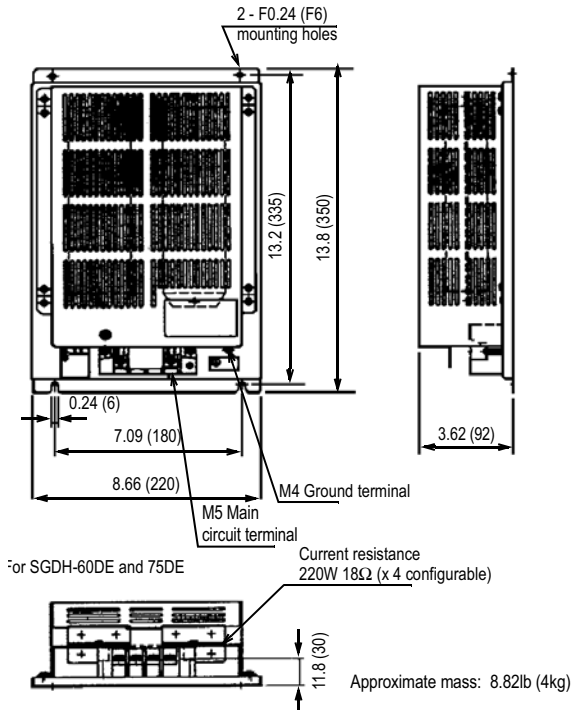


Mounting Hole Diagram

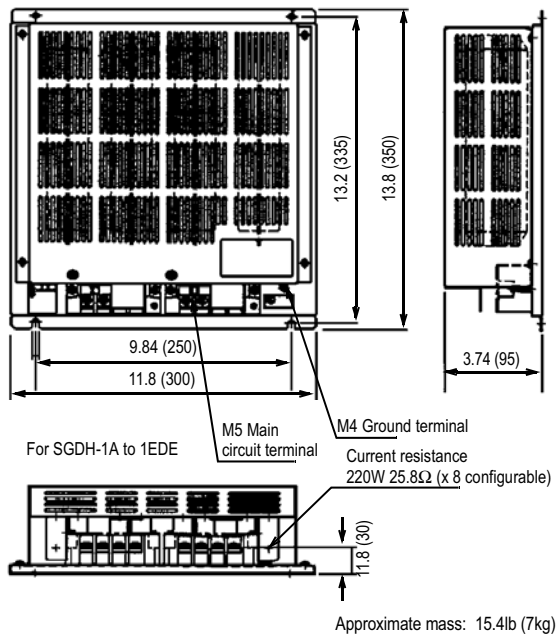


400V Sigma II Servo Systems

• Type JUSP-RA18



• Type JUSP-RA19



External Regenerative Resistors

Regenerative resistors for servo amplifiers are internally or externally mounted, as shown in the following table. They can be mounted externally on all servo amplifiers, but are especially effective when regenerative energy exceeds the servo amplifier's capacity.

When mounted externally, be sure to remove the jumper between B2 and B3, which deactivates the internal regenerative resistor.

Important: External regeneration resistor sizing and amplifier set-up will be important for proper operation.

Use Yaskawa's SigmaSize and the *Sigma II Series Servo System User's Manual: YEA-SIA-S800-32.2*

Applicable Servo Amplifier	Regenerative Resistor Mounted in a Servo Amplifier		Internal Regeneration Power Capacity (W)	Minimum Allowable Resistance (Ω)	
	Resistance (Ω)	Wattage* (W)			
400V Three-phase	SGDH-05DE	108	70	14	
	SGDH-10DE				
	SGDH-15DE				
	SGDH-20DE	45	140	28	44
	SGDH-30DE				
	SGDH-50DE	32	180	36	28
	SGDH-60DE	18**	880**	180	18
	SGDH-75DE				
SGDH-1ADE	14.25***	1760***	350	14.2	
SGDH-1EDE					

* Capacity prior to derating. If regeneration power requirements exceed internal capacity of the amp, install an external regeneration resistor (reference: Minimum allowable resistance). Be sure to derate wattage of external resistor to 20% or less (natural convection) and of 50% or less with forced air cooling.

** Provided externally by JUSP-RA18

*** Provided externally by JUSP-RA19

DB Units (For large capacity servo systems)

Externally attach a DB unit to the servopack.

This DB unit is used for dissipating motor EMF energy.

The DB unit does not need to be installed if the dynamic brake function is not required.

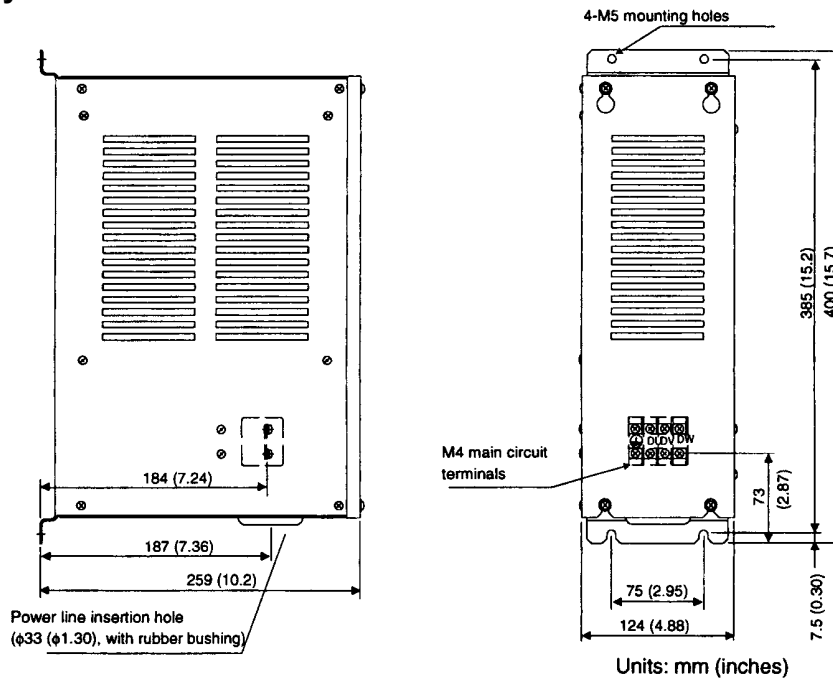
- **Specifications**

Use one of the following DB units according to the servopack model.

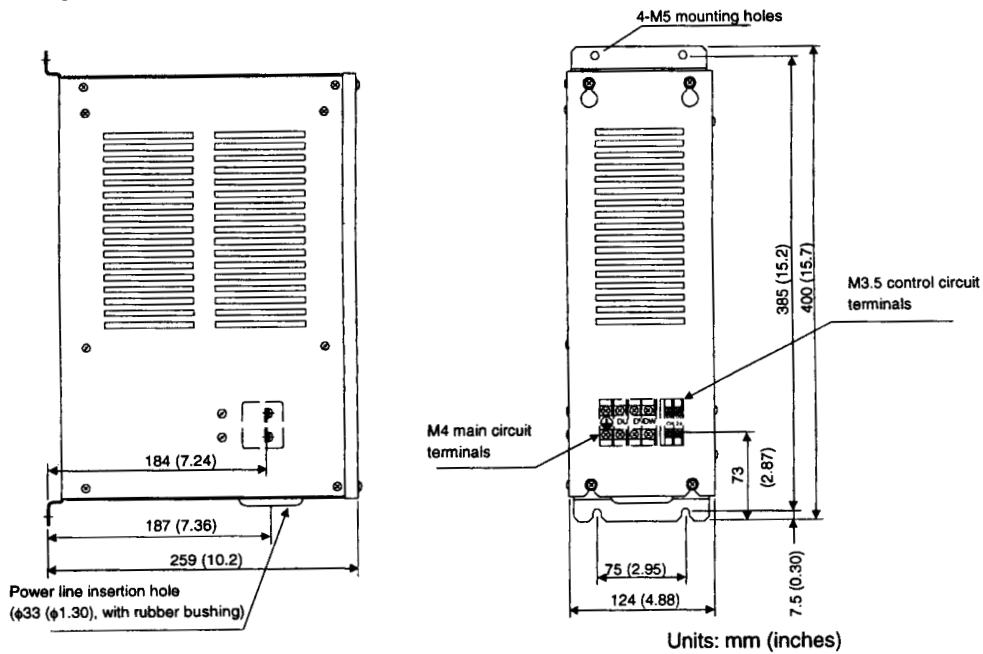
Servopack Model SDGH-	2BDE	3ZDE	3GDE	4EDE	5EDE
Regenerative DB Unit JUSP-	DB03		DB04	DB05	DB06
DB contactor and surge absorption unit	Built into servopack		Built into DB unit		
Resistance	0.8Ω				
Resistance Capacity	180W				300W
Allowable Load Moment of Inertia	5 times the load moment of inertia at motor shaft.				
Allowable Duty	Less than 1 time/H at maximum speed DB operation.				

400V Sigma II Servo Systems

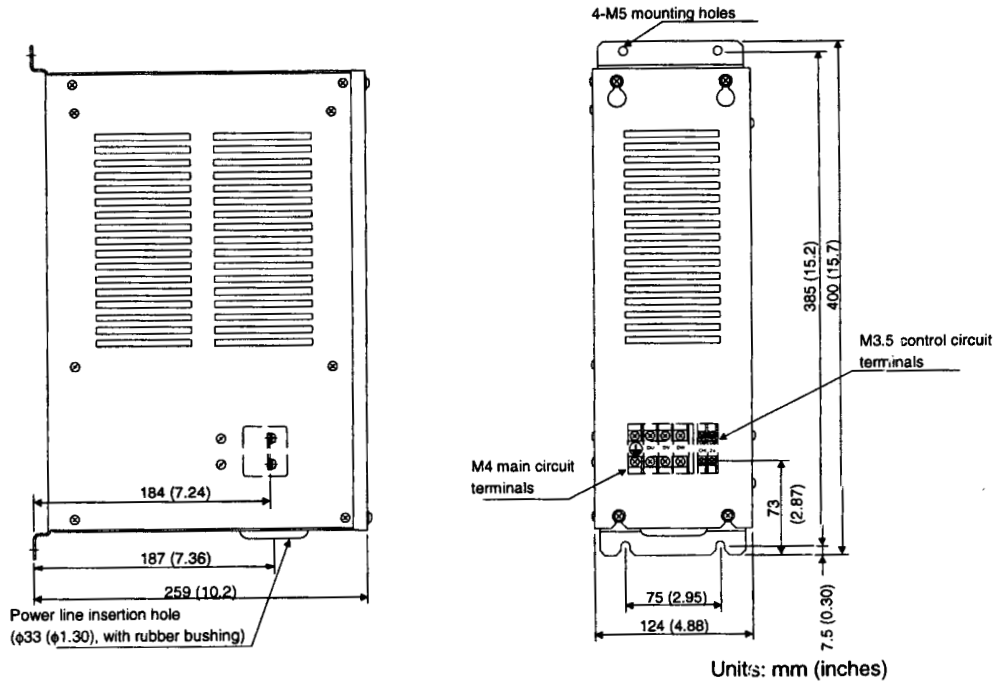
- JUSP-DB03 Dynamic Brake Unit



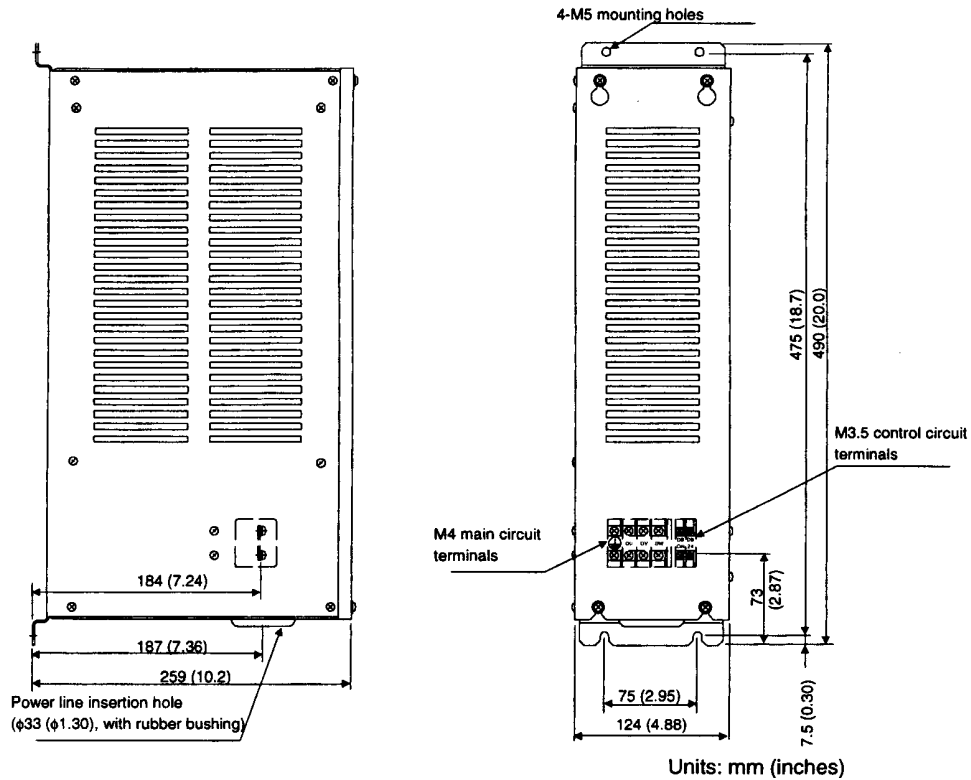
- JUSP-DB04 Dynamic Brake Unit



- JUSP-DB05 Dynamic Brake Unit**



- JUSP-DB06 Dynamic Brake Unit**

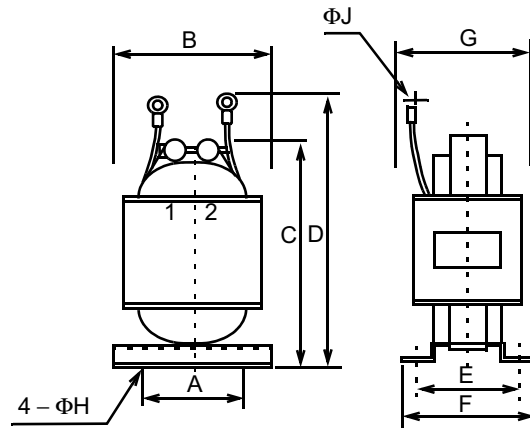


Control of Harmonic Frequency in the Power Supply Circuit

If harmonic frequency control is needed in the power supply, connect a DC reactor between terminals (+) 1 and (+) 2 on the servo amplifier's main circuit. Use the following table as a guide for selection of the appropriate reactor.

Applicable Servo Amplifier		Reactor Specifications		Reactor Model
		Impedance (mH)	Rated Current (A)	
400V	SGDH-05DE	4.7	1.5	X5074
	SGDH-10DE	3.3	4.5	X5075
	SGDH-15DE			
	SGDH-20DE	2.2	8.6	X5076
	SGDH-30DE			
	SGDH-50DE	1.5	14.1	X5077
Larger size amplifiers		—	—	Consult factory for availability

• DC Reactor Dimensional Drawings



Reactor Model	Dimensions in (mm)									Approximate Mass lb (kg)
	A	B	C	D	E	F	G	ΦH	ΦJ	
X5074	1.18 (30)	1.85 (47)	2.76 (70)	3.35 (85)	1.10 (28)	1.50 (38)	1.77 (45)	0.16 (4)	0.17 (4.3)	0.661 (0.3)
X5075	1.57 (40)	2.32 (59)	3.94 (100)	4.72 (120)	1.57 (40)	1.97 (50)	2.17 (55)			1.984 (0.9)
X5076	1.97 (50)	2.91 (74)	4.92 (125)	5.51 (140)	1.38 (35)	1.77 (45)	2.36 (60)	0.20 (5)		2.43 (1.1)
X5077	Consult factory									